

10025
Breccia
8.1 grams



Figure 1: Photo of 10025. Sample is 5.5 cm long. NASA S76-28225.

Mineralogical Mode

	Chao et al. 1971
Basaltic rock	12.9
Anorthositic rock	0.2
Mineral fragments	4.4
Glass-welded aggregate	10.9
Devitrified glass	1.7
Heterogeneous glass	1.6
Homogeneous glass	2.1
Basaltic microbreccia	0.5
Anorthositic breccia	0.3
Shocked	0.3
Less than 25 microns	21.5
Pore space	43.9

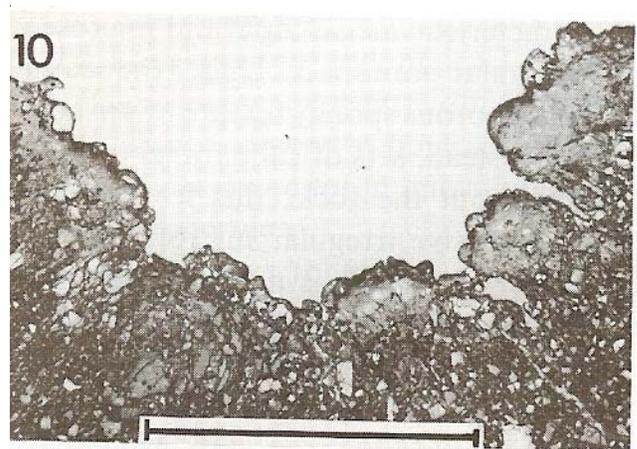


Figure 2: Cross section through a micrometeorite crater on the surface of 10025 (Chao et al. 1971).

Introduction

10025w as collected as part of the contingency sample from the area immediately in front of the Lunar Module (LM). It is a friable regolith breccia (figure 1)..

Kramer et al. (1979) noted that there were zap pits (with raised rims!). Chao et al. (1971) illustrate a cross section thru one of these micrometeorite crater in 10025 (figure 2).

Petrography

Chao et al. (1971) studied a thin section (figure 3) and reported a mode.

Chemistry
none

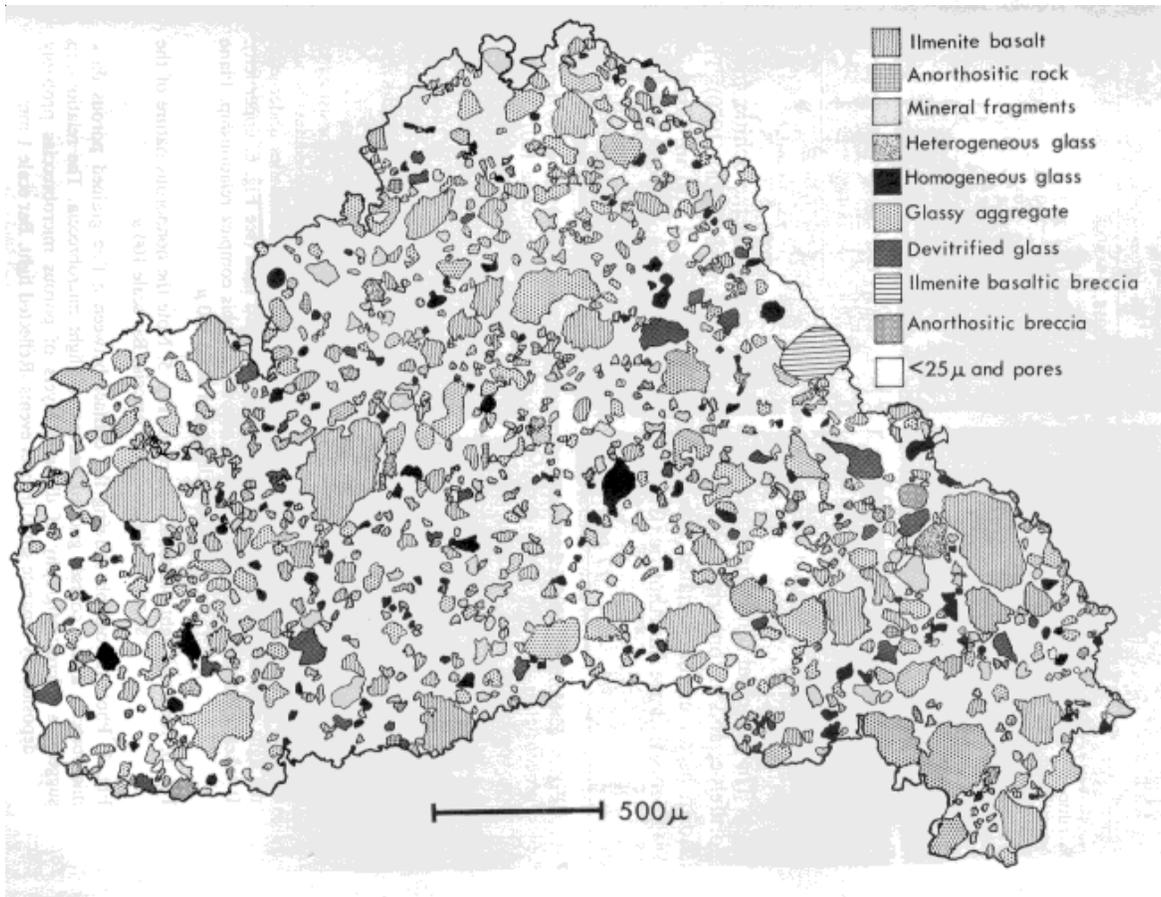
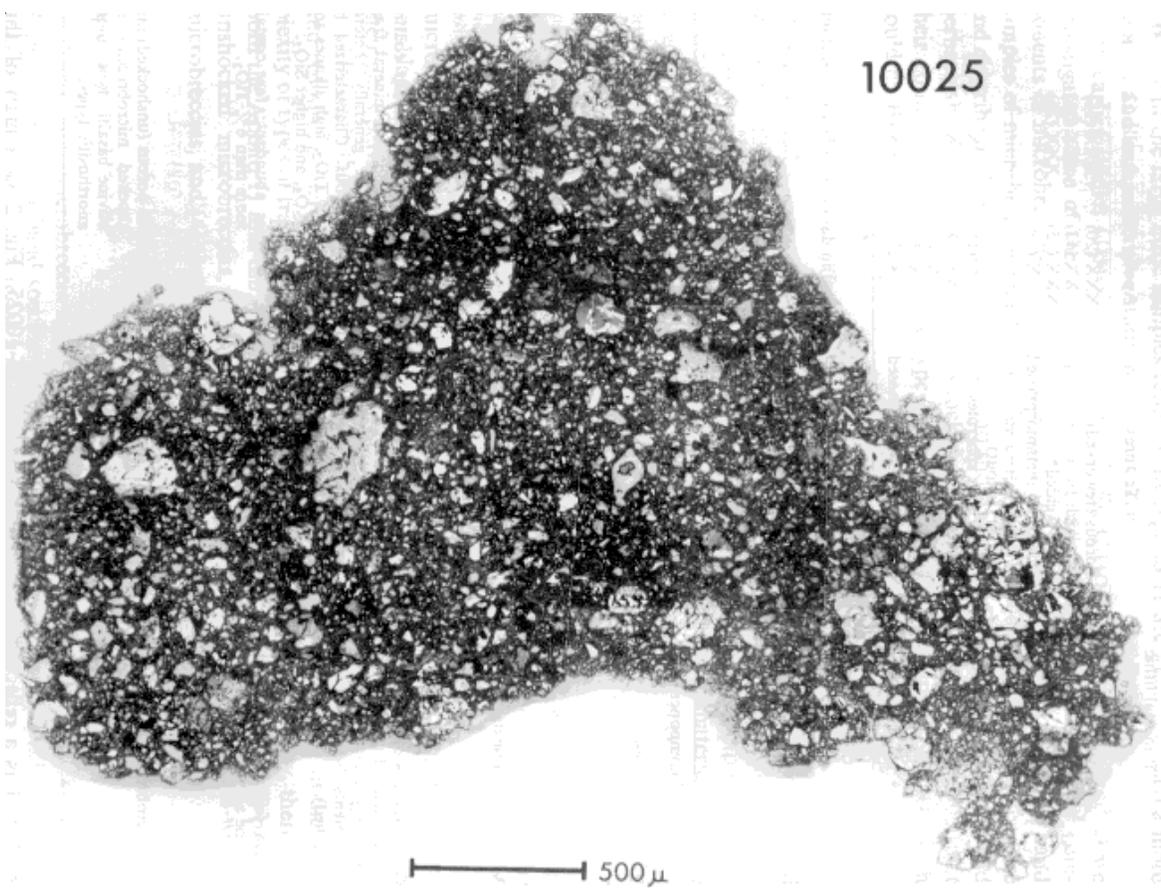
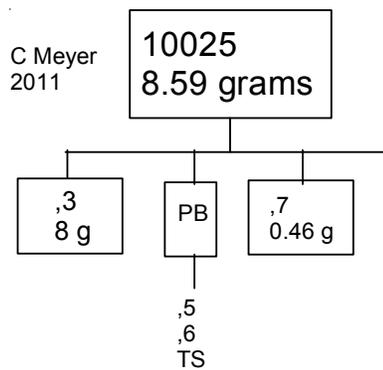


Figure 3: Photo and sketch map of thin section of 10025 (Chao et al. 1971).



Processing

Apollo 11 samples were originally described and cataloged in 1969 and “recataloged” by Kramer et al. (1977). There are only two thin sections.

References for 10025

Chao E.C.T., James O.B., Minkin J.A., Boreman J.A., Jackson E.D. and Raleigh C.B. (1970) Petrology of unshocked crystalline rocks and evidence of impact metamorphism in Apollo 11 returned lunar samples. *Proc. Apollo 11 Lunar Sci. Conf.* 287-314.

Chao E.C.T., Boreman J.A., Minkin J.A. and James O.B. (1970) Lunar glasses of impact origin: Physical and chemical characteristics and geologic implications. *J. Geophys. Res.* 75, 7445-7479.

King E.A. *and a cast of thousands* (1969) Lunar Sample Information Catalog, Apollo 11. Lunar Receiving Laboratory, MSC 412 pp

Kramer F.E., Twedell D.B. and Walton W.J.A. (1977) **Apollo 11 Lunar Sample Information Catalogue** (revised). Curator’s Office, JSC 12522

Lofgren G.E. (1971b) Devitrified glass fragments from Apollo 11 and Apollo 12 lunar samples. *Proc. 2nd Lunar Sci. Conf.* 949-955

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Schmitt H.H., Lofgren G., Swann G.A. and Simmons G. (1970) The Apollo 11 samples: Introduction. *Proc. Apollo 11 Lunar Science Conf.* 1-54.